

Submission under 37 C.F.R. §1.114
Application No. 10/564,091
Attorney Docket No. 053482

REMARKS

(1) Claims 1-8 and 17-22 are pending in this application. Claim 3 has been amended to dependent on claim 1. Claims 20-22 have been added in this Response.

(2) Applicants' representative appreciates the Examiner about the telephone discussion on December 23, 2008. The following remarks include applicants' separate record of the substance of that discussion.

(2) Claims 1-8 and 17-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Soane et al. (U.S. Patent No. 6,379,753) in view of Hirano et al. (JP 2000-017572).

(i) Claims 1-8 and 17-22

Soane et al. teach modifying textile to impart water repellency (col. 1, lines 19-20). Soane et al. further teach modifying a variety of textile fiber materials to improve "water repellency," "grease repellency," and "detergent free washing" (col. 5, line 1-3). Soane et al. disclose that "the *hydrophobic* groups are covalently attached (col. 10, lines 10-11)." Soane et al. teach improving water resistance and increasing the *hydrophobicity* (col. 4, lines 49-50; col. 5, lines 8-9). The improvement of the "water repellency" is obtained by the hydrophobic treatment.

The Examiner might have considered that Soane et al. teach a hydrophilic treatment merely because Soane et al. disclose multifunctional polymers including hydrophobic groups and hydrophilic groups (e.g., col. 5, lines 33-34; col. 12, lines 39-41). However, Soane et al. clearly teach that these multifunctional polymers are used to form *hydrophobic water repellent* coatings (col. 12, lines 42-44). Soane et al. teach that the surface of the cotton fabric is hydrophilic (col. 13, lines 6-7). As disclosed in Fig. 4 of Soane et al., the hydrophilic region is used for combining the cotton with the multifunctional polymer, thereby the surface of the treated cotton having a hydrophilic surface. In other words, the hydrophilic regions of both the cotton and the multifunctional polymers are consumed by the Soane's treatment. *See* Fig. 4. The cotton treated by Soane et al. has become less hydrophilic than the cotton before treatment. Thus, the moisture absorption ratio has decreased, not increased, by the treatment of Soane et al.

In contrast, claim 1 has been amended to incorporate the limitation of "has increased a moisture absorption ratio." Claim 17 recites that "the cellulose fiber of the cellulose product has a moisture absorption ratio of 7.1% or higher." The reference Example, the original cotton (page 20, lines 15-16 of the specification) has a moisture absorption ratio of 7.0%. Thus, the cellulose fiber of claim 17 has an increased moisture absorption ratio than the original cotton. Claim 20 recites "the cellulose fiber after the hydrophilization treatment has increased a moisture absorption ratio."

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Hirano et al. teach a hydrophilization treatment (Abstract). The Examiner's proposal to modify Soane et al. with Hirano et al. will destroy the Soane's invention since Soane et al. try to increase water repellency (col. 1, line 20 of Soane et al.). In the telephone interview, the Examiner indicated that such a modification is "possible." However, mere possibility of the combination does not motivate one skilled in the art to so modify. Because Soane's teaching is opposite to the Hirano's teaching, one skilled in the art rather considers that Soane's teaching is inapplicable to Hirano et al. Thus, the methods in claims 1, 17 and 20 are distinguishable from Soane et al.

(ii) Claims 20-22

Newly added claim 20 is supported at claim 18; and page 20, lines 27-28 and Table 1 at page 25 of the original specification. In particular, claim 20 recites "applying an oily component including oleic acid to the cellulose fiber after the hydrophilization treatment," supported at page 20, lines 27-28 of the original specification. Claim 20 further recites "washing the cellulose fiber after the hydrophilization treatment with water without using a detergent at remaining ratio of 10 to 42 %," supported by the results of the "remaining ratio" in Table 1 at page 25. The limitations in claims 21 and 22 are found in claims 18 and 19, respectively.

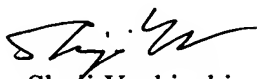
The Hirano reference does not teach washing a cellulose product with water without using a detergent. It is unpredictable in Hirano to wash a cellulose product without using a

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detergent such that the remaining ratio of oleic acid falls within the claimed range. The results of the invention recited in claim 20 are unpredictable. Thus, claims 20-22 are not obvious over the cited references.

(3) In view of above, Applicants submit that that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date. If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number indicated below to arrange for an interview to expedite the disposition of this case. If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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